

CBO's Role in Assessing Climate Change and Climate Change Policy

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CBO's Role

CBO was established to give the Congress a stronger role in budget matters.

The agency provides analysis of budgetary and economic issues that is objective and impartial. It is strictly nonpartisan and does not make policy recommendations.

CBO follows processes that are specified in statute or that it has developed in concert with the budget committees and Congressional leadership. CBO's chief responsibility under the Budget Act is to help the budget committees with the matters under their jurisdiction.

The Effects of Climate Change and Climate Change Policy on the Federal Budget

Budgetary Effects of Climate Change and Efforts to Address It



Climate change results in physical effects that reduce economic output.

Potential consequences exist for revenues, mandatory spending, and discretionary spending.

Adaptation and mitigation could reduce physical and budgetary effects.

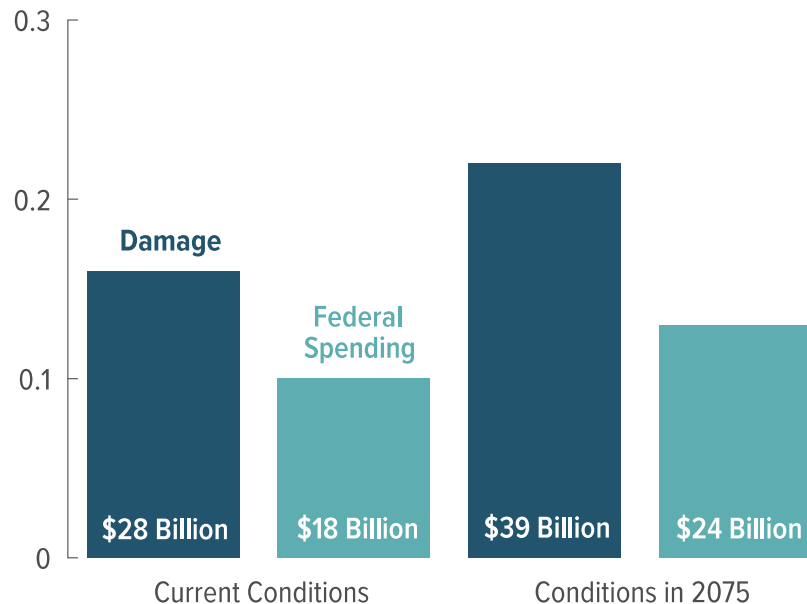


Effects of Climate Change

Estimates of Hurricane Damage

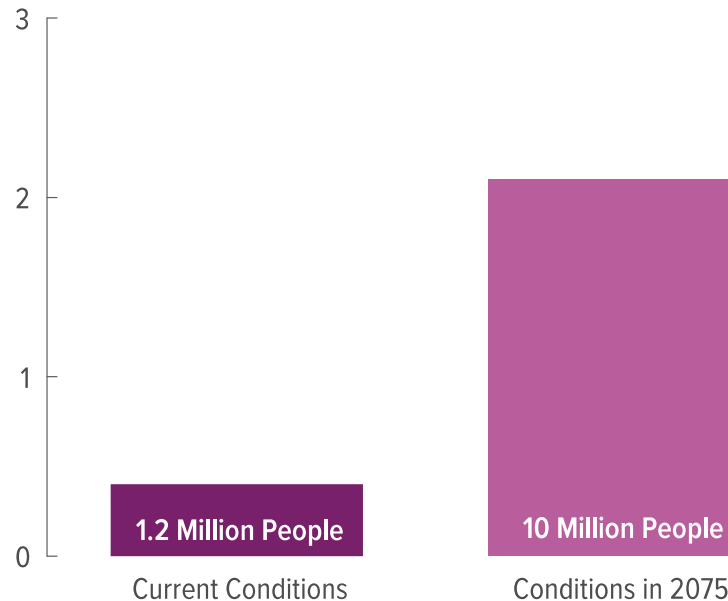
Expected Hurricane Damage and Related Federal Spending

Percentage of Gross Domestic Product
(Also shown in dollars based on today's economy)



Percentage of the U.S. Population Living in Counties With Substantial Hurricane Damage

Percentage of U.S. Population



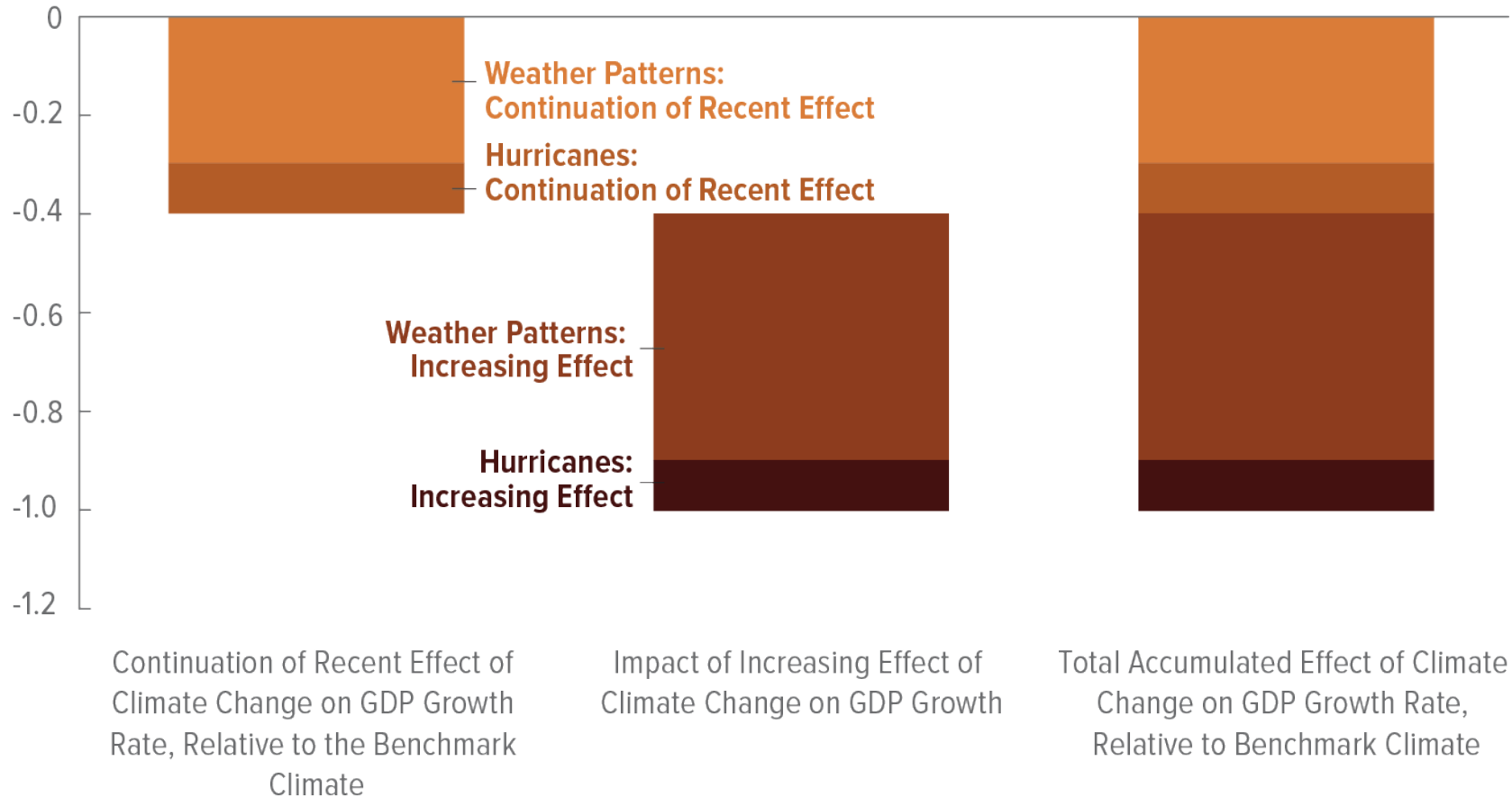
The cost of hurricane damage is expected to increase more than the economy will grow.

Expected annual damage in 2016 was 0.16 percent of GDP.

Expected annual damage in 2075 is 0.22 percent of GDP.

How Climate Change Is Expected to Change the Level of Real Gross Domestic Product in 2050

Percentage of Real GDP



Climate change will reduce the growth rate of real GDP from 2020 to 2050 by an average of 0.03 percentage points.

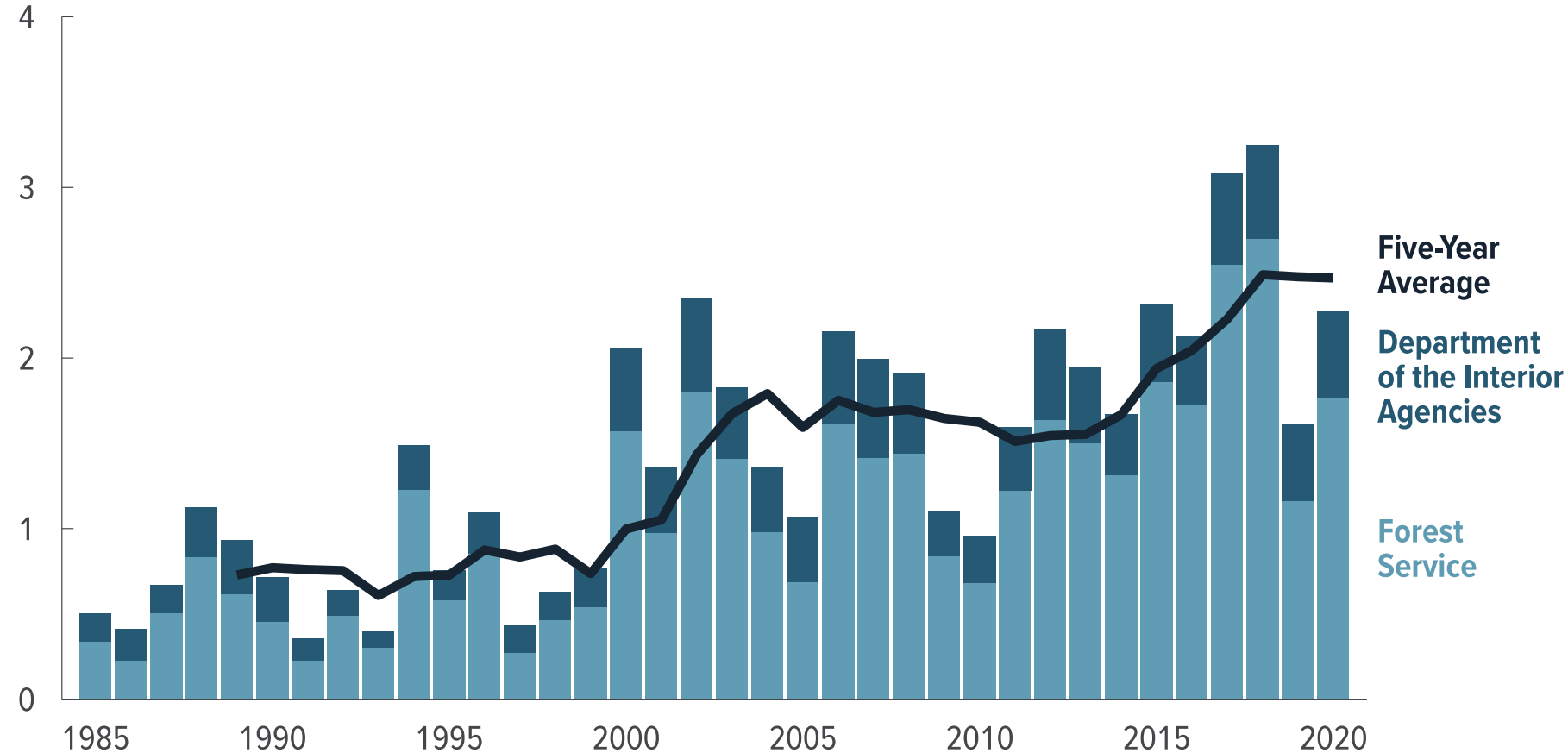
That difference in annual growth accumulates to a 1.0 percent reduction in the projected level of real GDP in 2050.

Climate change will have effects on people's well-being that are not measured in GDP.

How Wildfires Affect the Federal Budget

Spending on Wildfire Suppression by the U.S. Forest Service and Department of the Interior

Billions of 2020 Dollars



Wildfires affect the federal budget through spending on fire suppression, forest management, disaster assistance, and other activities.

The 5-year moving average for federal spending on wildfire suppression has tripled in recent years.

Climate change has created hotter and drier conditions that are conducive to longer and more severe wildfire seasons.

Effects of Policies That Would Address Climate Change



How a Tax on Greenhouse Gas Emissions Would Affect the Federal Budget

Billions of Dollars

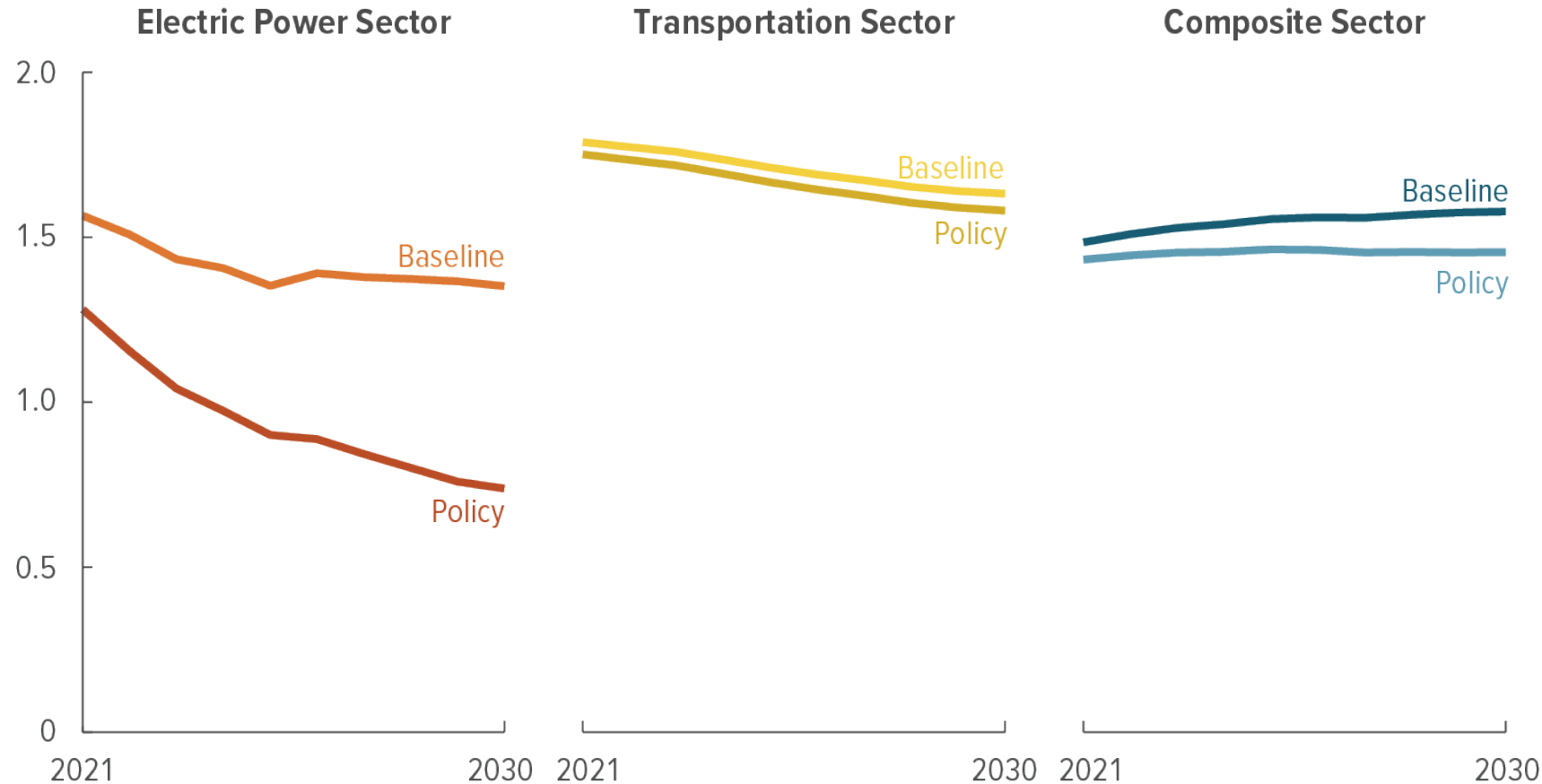
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2021-2025	2021-2030
Change in Revenues	58.2	89.9	92.1	96.6	101.8	106.2	111.4	117.9	125.1	133.4	438.6	1,032.5

One option: Impose a tax on greenhouse gas emissions: \$25 per ton rising at a real rate of 5 percent per year

Implementing that option would raise about \$1 trillion over a 10-year period.

How a Tax on Greenhouse Gas Emissions Would Reduce Emissions

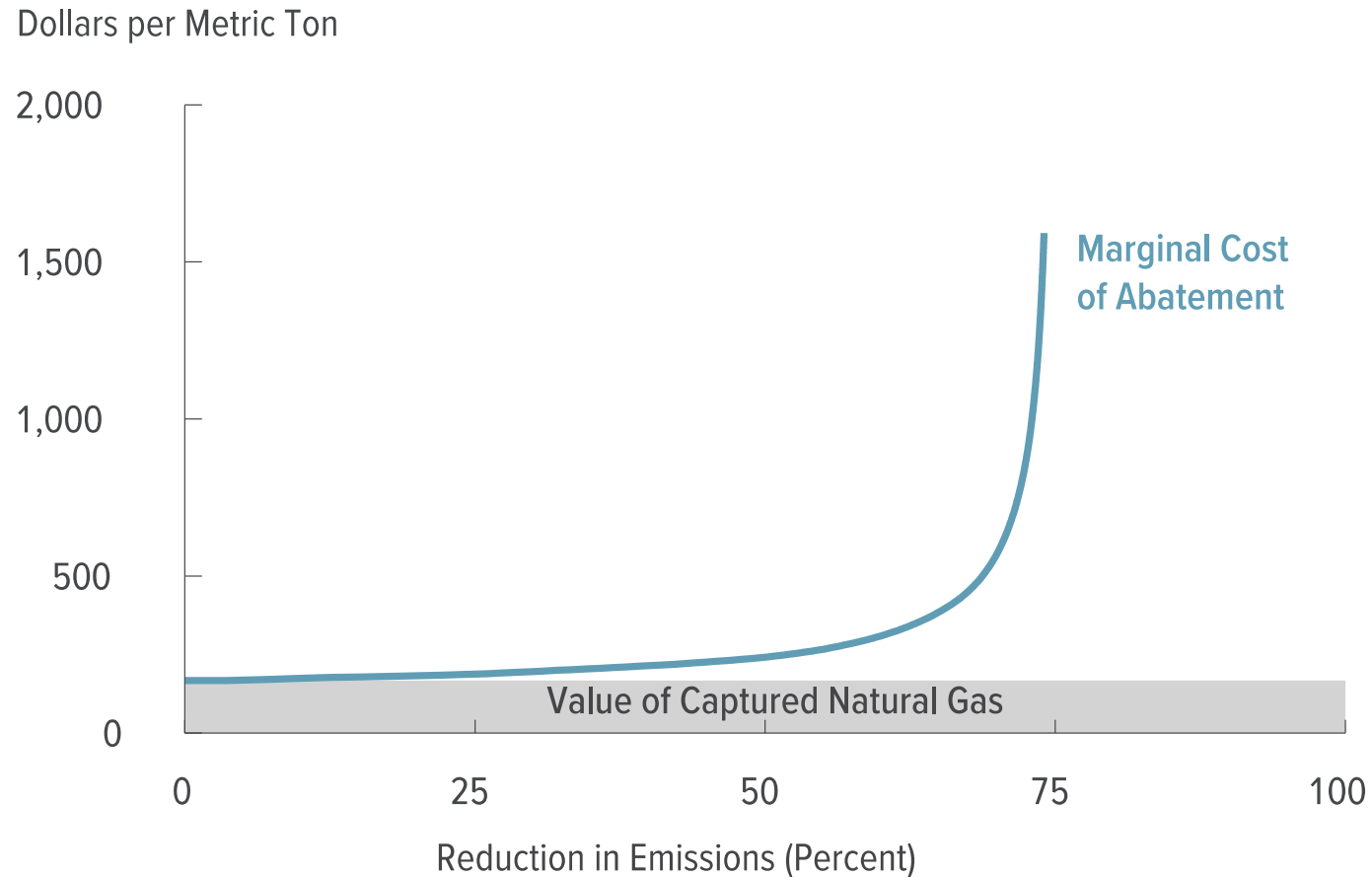
Billions of Metric Tons of Carbon Dioxide



The electric power sector is the most responsive sector to a tax on greenhouse gas emissions.

That sector has more opportunities for switching to less carbon-intensive fuels than do the other sectors.

An Estimate of the Marginal Cost of Abating Methane Emissions From Natural Gas Production



Charging for methane emissions affects the amount of emissions, the cost to produce natural gas, and the price of natural gas.

The increase in natural gas prices depends on how sensitive end users are to an increase compared with producers' sensitivity.



Thank You